Release Notes for Raritan PX3TS Firmware Version 2.6.1

Version: PX2 2.6.1 Build 41229 Release Notes, Version 1
Date: April 11, 2014

Effective: Immediately.

Applicability:

This release contains a critical security fix found in OpenSSL (CVE-2014-0160, **details below in the *Release 2.6.1 Contains All Enhancements and Fixes* section below), and it is highly recommended that all PX3TS customers upgrade to this release immediately. Raritan will not be liable for any security breaches resulting from older firmware on a unit.**

This firmware release is for General Availability ("GA") on all existing PX3TS models only. Units in the field can do a firmware upgrade to this release.

It is NOT supported on the Raritan iPDUs (PX2-nnnn, PX3-nnnn, PXE, or the BCM24xx).

There is a new User Guide for PX2.6.0 which should be used with this release. Some custom engineered models may not be supported by this release. Please check with Raritan Support if you are unsure of the model number of your unit; it is typically viewable on the GUI *Device Information* page, and is printed on a label on the unit.

Caution: Only Power IQ releases 4.1 and higher are compatible with PX2.6.1.

Due to the critical security fix, and other internal enhancements in PX 2.6.1, you cannot downgrade from Release 2.6.1 build 41229 **to ANY prior release. Please contact Raritan Support with any questions.**

Release Status: General Availability (GA) - see **Release compatibility information** section below.

Release 2.6.1 contains all enhancements and fixes which are listed below:

1) The resolution for certain sensors has been increased from two (x.xx) to three (x.xxx) decimal digits, however, accuracy is still the same as before. The Raritan SNMP MIB contains a value that provides the resolution, and it must be used to determine the value of sensor reading. The updated SNMP MIB can be retrieved from the unit itself using the GUI.

2) It is now possible to bulk-configure wireless units. [48851]

3) The LCD display will show degrees C or F depending on the default user preference. Note that the units used for the LCD are determined by the default user preferences (see User Management -> Default User Preferences), not the logged in user preferences. [51356]

4) Added an event for detecting a non-Raritan 1-wire device if plugged into the Sensor port [51795]

5) Default thresholds have been set for the optional external temperature sensors, per ASHRAE guidelines as follows:

   Lower Critical Alert Threshold: 10C/50F
   Lower Warning Alert Threshold: 15C/59F
   Upper Warning Alert Threshold: 30C/86F
   Upper Critical Alert Threshold 35C/95F

6) Support has been added to allow disabling/enabling of the web server http/s. Caution: JSON-RPC will not work when http(s) is disabled. [53973]

7) Addressed potential XSS vulnerability. [54277]

8) Added Java IDL bindings [52816]

   - generated IDL binding classes for pure Java

   - added/included JSON and HTTP Java libraries

9) Under some conditions, the failed login count was not getting reset after a successful login. This has been fixed. [53705]

10) For the optional webcam, the "Location Name", "Location x", "Location y" and "Location z" should not get restored as part of bulk restoral, these values were getting restored. This has been fixed. [53276]

11) Plugging and unplugging the Cinterion GSM modem multiple times may have caused the unit to restart. This has been fixed. [53847]

12) Changing from a CLI console serial port PX connection to a GSM serial port connection may have caused the GSM modem not to be detected. This has been fixed. [53966]

13) It is now possible to disable the USB “A” (Host) port on the PX3TS unit via a firmware option. Please contact Raritan support if you need to use this capability. [51788]

14) Added support for the DX-D2C6 sensor. [52889]

15) Added display connector type in the GUI. [54150]

16) Added support for HTTP-to-HTTPS redirection in Python JSON-RPC bindings. [54176]

17) Fixed Nessus warning of SSH server < 2013.59 multiple vulnerabilities. [54600]

18) Changed GUI focus on Restricted Service Agreement (RSA) screen to allow easier configuration.

19) Firmware upgrade via SCP is now supported.[52505]

20) Added capability to change the number of times the Server Reachability monitor cycles an outlet. [52507]

21) Capability to add static routes to the PX2 in addition to the default gateway has been added. This enables the PDU to communicate with devices that are not reachable via the default route. [52291]

22) Added Single IP address cascading-where one IP address is used for up to eight (8) USB cascaded iPDUs (exception: the USB cascading feature is not supported on PXE units), or other supported devices that can run PX2-2.6.1 firmware. See the PX2.6.1 User Guide for details. [52887]

23) Support has been added for an IOS application, with limited functionality, running on an Apple IPad running IOS 7.1 with a wired connection.

24) MODBUS TCP support has been added. [52537]

25) PX3TS transfer time statistics have been added. Login to CLI, type "show reliability data". There are three new entries:

    a. TS.TS1.TRANSFERCNT is the total number of transfers,

    b. TS.TS1.RELAYOPENTIME is the relay open time for the last transfer, the raw value is in microseconds. The normalized value is 100% when the time is below 2ms and 0% when it is above 6ms. At 50% (4ms) an error will be logged.

    c. TS.TS1.TOTALTRANSFERTIME [51964]

26) Fixed severe issue identified in CVE-2014-0160 which was found in OpenSSL 1.0.1:

    More information is available here: http://heartbleed.com/

    In short:

    "The Heartbleed bug allows anyone on the Internet to read the memory of the systems protected by the vulnerable versions of the OpenSSL software. This

compromises the secret keys used to identify the service providers and to encrypt the traffic, the names and passwords of the users and the actual content. This allows attackers to eavesdrop communications, steal data directly from the services and users and to impersonate services and users."

To fix this, the OpenSSL library has been updated to the newest version in PX2.6.1, in which this vulnerability is resolved.

Since private keys could have leaked already customers should revoke any SSL certificates installed on the affected devices and replace them with new ones. [55971]

Caution: Only Power IQ releases 4.1 and higher are compatible with PX2.6.1.

Support for new or revised models; see **Release compatibility information** section below.

Consult the PX2.6.0 User Guide for more information on these firmware features.

Raritan PX Documentation:

The User Guide for PX3TS for 2.6.0 (PDF format) should be used with this release. The SNMP MIBs- PDU, Asset Management Sensor (AMS) - are retrievable from the unit itself. An updated USB serial driver (v2.0) is posted on the Raritan website under *Support-Other Files* (scroll down to see the *Other Files*):
http://www.raritan.com/support/dominion-px2/

Not Supported with PX 2.6.1:

Raritan iPDUs are NOT supported with this release; these are supported in release: PX2.5.30.

If you are unsure that your model is supported by this firmware, please contact Raritan Support.

Caution: Only Power IQ releases 4.1 and higher are compatible with PX2.6.1.

Upgrade Matrix (path for upgrades):

This release is intended for factory shipments on all PX3TS models, as well as PX3TS models in the field. See specific model list below.

Release compatibility information:

PX3TS-1875R
PX3TS-1876R

Important Notes and Information:

Enable Javascript in your browser before logging into the unit to start the upgrade process.

Known Issues with this Release:

Caution: Only Power IQ releases 4.1 and higher are compatible with PX2.6.1.

1) The range for the power sensors of the metered outlets are calculated using the ranges of the current and voltage ranges, although the user can enter up to 35000W/VA, which is incorrect. [55449]
2) Unacknowledged Alarms are not persistent in the Alarms section on the Dashboard page, they are not retained after a unit reset, hardware reset, or power cycle is performed on any unit running PX2 firmware. [55395]
3) This firmware is not intended to be used with Schroff LHX20/40 and SHX30 water coolers-unless specifically recommended by Schroff. Please contact Schroff Support.[55204]
4) According to industry standards set by the Certification Authority/Browser (CA/B) Forum, certificates issued after January 1, 2014 must be at least 2048 bits. Some browser SSL implementations may reject keys less than 2048 bits after January 1, 2014. Additionally, some SSL certificate vendors may revoke certificates less than 2048 bits issued before January 1, 2014. To comply with this standard, please note that Raritan will REMOVE the 1024-bit option in the next firmware release. This is advanced notice of this upcoming change. [54719]

5) This firmware release has not been tested with Cisco EnergyWise. Please contact Support if this is required for your application. [51731]

6) The PX3TS prefix in the part number indicates that there is an RJ45 Feature port. Do NOT plug in the Ethernet cable from an Ethernet switch/router into this port as it will damage the hardware in the PX3TS, and the unit will not boot-up. This is because the Raritan Feature port carries power on one of the pins that is used to power certain sensors like the Raritan AMS. [53930]

Release Package Details:

The Release 2.6.1 package has the following components. It is a GA release, and will be posted on the Raritan website.

Some releases ("LA", for limited availability, meaning not tested on all products like GA releases are) are **not** posted on the website, and are intended for specific old or new models only. If posted, the file is zipped and must be unzipped before it can be installed on the Raritan unit:

"PX3TS ReleaseNotes2_6_1v1" – this file
A firmware release (binary):
pdu-px2-2.6.1.5.41229.bin

Firmware Upgrade Pre-requisites:

Please read the entire instructions (this document) before proceeding.

If you have any questions, or cannot follow the instructions in the User Guide, please STOP and contact Raritan Technical Support for further instructions.

General Upgrade Instructions (standalone upgrade from the browser based user interface): Follow instructions in the User Guide.

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